This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (withdrawn): A method for manufacturing a magnetic head, comprising the steps of:

depositing a thin film layer of material upon at least a portion of the ABS surface of a P2 pole tip of said head;

milling portions of said thin film layer and portions of said P2 pole tip utilizing a focused ion beam (FIB) tool; and

removing said thin film layer of material from said head.

2. (withdrawn): A method for manufacturing a magnetic head as described in claim 1 wherein said thin film layer of material is deposited upon said P2 pole tip such that an upper portion of said P2 pole tip is not covered by said material.

3. (withdrawn): A method for manufacturing a magnetic head as described in claim 2 wherein milling boxes of said FIB tool are aligned upon said P2 pole tip through visualization of said upper portion of said P2 pole tip.

4. (withdrawn): A method for manufacturing a magnetic head as described in claim 1 wherein said portions of said P2 pole tip that are milled include the side edges of said P2 pole tip.

5. (withdrawn): A method for manufacturing a magnetic head as described in claim 1 wherein portions of the ABS surface of a P1 pole of said head are covered by said thin film layer of material.

6. (withdrawn): A method for manufacturing a magnetic head as described in claim 5 wherein portions of said P1 pole are milled by said FIB tool.

7. (withdrawn): A method for manufacturing a magnetic head as described in claim 1 wherein said thin film layer is comprised of a hardened photoresist.

8. (withdrawn): A method for manufacturing a magnetic head as described in claim 7 wherein said thin film layer of material is removed using a chemical formulation.

9. (withdrawn): A method for manufacturing a magnetic head as described in claim 1 wherein said thin film layer of material is deposited utilizing said FIB tool.

10. (withdrawn): A method for manufacturing a magnetic head, comprising the steps of:

forming a write head portion of a magnetic head upon a substrate surface such that said write head includes an air bearing surface (ABS) having an exposed P1 pole and an exposed P2 pole tip;

depositing a thin film layer of material upon said P2 pole tip;

aligning the milling boxes of a focused ion beam (FIB) tool upon said layer above said P2 pole tip;

milling side edge portions of said P2 pole tip utilizing said FIB tool; and

removing said thin film layer of material from said write head following said milling step.

11. (withdrawn): A method for manufacturing a magnetic head as described in claim 10 wherein an upper portion of said P2 pole tip is not covered by said layer of material.

12. (withdrawn): A method for manufacturing a magnetic head as described in claim 10 wherein said step of aligning the milling boxes includes the step of visualization of upper portions of said P2 pole tip.

13. (withdrawn): A method for manufacturing a magnetic head as described in claim 10 wherein said thin film layer of material is comprised of a hardened photoresist.

14. (withdrawn): A method for manufacturing a magnetic head as described in claim 10 wherein portions of a P1 pole of said write head are covered by said thin film layer of material, and wherein portions of said P1 pole are milled during said milling step.

15. (withdrawn): A method for manufacturing a magnetic head as described in claim 10 wherein said thin film layer of material is removed using a chemical formulation.

16. (withdrawn): A method for manufacturing a magnetic head as described in claim 10 wherein said thin film layer of material is deposited utilizing said FIB tool.

17. (withdrawn): A method for manufacturing a magnetic head as described in claim 16 wherein said thin film layer material includes an element from the group consisting of tungsten, platinum, and gallium.

18. (withdrawn): A method for manufacturing a magnetic head as described in claim 10 wherein said magnetic head is part of a row of magnetic heads that are sequentially milled by said FIB tool.

19. (withdrawn): A method for manufacturing a magnetic head as described in claim 10 wherein said FIB tool provides a Ga + ion beam having a current from 10 pico-Amps to 30 nano-Amps.

20. (withdrawn): A method for manufacturing a magnetic head as described in claim 19 wherein said FIB tool provides a Ga + ion beam having a nominal dose of from 0.01 nC/micron^2 to 10 nC/micron^2.

21. (withdrawn): A method for manufacturing a magnetic head as described in claim 10 wherein said thin film layer is deposited in a thickness of approximately 0.1 microns.

22. (withdrawn): A method for manufacturing a magnetic write head as described in claim 21 wherein said FIB tool provides a 100 pico-Amp Ga + ion beam at 50 keV energy for providing a nominal dose of 4.0 nC/micron^2.

23. (original): A magnetic head, comprising:

a slider having an air bearing surface; and

a magnetic pole structure including a P1 pole and a P2 pole tip that are separated by a write gap layer;

said P2 pole tip having a substantially planar surface that is substantially coincident with said air bearing surface, and said P2 pole tip having ion milled side surfaces that meet with said substantially planar surface to form substantially square edges.

24. (original): A magnetic head as described in claim 23 wherein said substantially square edges form corners substantially defining right angles.

25. (original): A magnetic head as described in claim 24 wherein said corners are formed with a radius of curvature of from 0.10 nanometers to less than 100 nanometers.

26. (original): A magnetic head as described in claim 23 wherein said P1 pole is formed with a substantially planar surface that is substantially coincident with said air bearing surface, and said P1 pole includes ion milled notches that meet with said substantially planar surface to form substantially square edges.

27. (original): A magnetic head as described in claim 26 wherein said substantially square edges of said P1 pole notches form corners substantially defining right angles.

28. (original): A hard disk drive comprising:

at least one hard disk being adapted for rotary motion upon a disk drive;

at least one magnetic head being adapted to fly over said hard disk for writing data on said hard disk, said magnetic head including:

a slider having an air bearing surface; and

a magnetic pole structure including a P1 pole and a P2 pole tip that are separated by a write gap layer;

said P2 pole tip having a substantially planar surface that is substantially coincident with said air bearing surface, and said P2 pole tip having ion milled side surfaces that meet with said substantially planar surface to form substantially square edges.

29. (original): A hard disk drive as described in claim 28 wherein said substantially square edges form corners substantially defining right angles.

30. (currently amended): A hard disk drive as described in claim 29 wherein said corners are formed with a radius of curvature of from 0.10 nanometers to ~~100~~ less than 100 nanometers.

31. (original): A hard disk drive as described in claim 28 wherein said P1 pole is formed with a substantially planar surface that is substantially coincident with said air bearing surface, and said P1 pole includes ion milled notches that meet with said substantially planar surface to form substantially square edges.

32. (original): A hard disk drive as described in claim 31 wherein said substantially square edges of said P1 pole notches form corners substantially defining right angles.